

CLAIMS

1. Device for receiving ceramic heating elements (PTC elements, cold conductors) in a heating device, having an insulating frame and at least one contact plate held said insulating frame and on which can be placed the heating elements, wherein the contact plate and frame are frictionally connected.
2. Device according to claim 1, wherein, over most of its length, the contact plate is held in grooves of frame formed in longitudinal struts.
3. Device according to claim 1, wherein, at least in a limited longitudinal portion of the frame, the contact plate is completely and tightly surrounded by the same.
4. Device according to claim 1, wherein the contact plate is additionally positively held in frame.
5. Device according to claim 1, wherein on one side of the contact plate, the frame has crossbars between which the heating elements can be inserted.
6. Device according to claim 3, wherein the longitudinal struts surrounding the recesses receiving the heating elements and the crossbars of frame are constructed as inwardly directed studs for the positive retention of the heating elements.
7. Device according to claim 1, wherein bulges, projecting over the narrow side, are constructed on the frame for the non-positive fixing of the frame in a profile tube.

8. Device according to claim 1, wherein the contact plate projects over the frame at least on one front side.

9. Device according to claim 8, wherein the contact plate projects over the frame precisely on one front side.

10. Device according to claim 8, wherein the projecting end or ends of the contact plate are constructed as terminal lugs.

11. Device according to claim 1, wherein the frame is made from one of the following materials or a union of at least two such materials: plastic, polymer ceramic, moulded-on ceramic.

12. Device according to claim 11, wherein on a side of the contact plate remote from a reception side for the heating elements, the frame is completely closed and consequently the contact plate is provided with a covering completely covering the same.

13. Device according to claim 11, wherein on its side remote from the reception side for the heating elements, the contact plate is covered by a polymer ceramic or ceramic cover layer, whilst the rest of the frame is made from plastic or polymer ceramic.

14. Device for receiving ceramic heating elements (PTC elements, cold conductors) in a heating device, having a contact plate and holding elements for holding the heating elements to prevent slipping on the contact plate, wherein an insulating layer is applied to a side of the contact plate remote from the reception side for the heating elements.

15. Device according to claim 14, wherein the holding elements are formed by projections pressed out of the plane of the contact plate.

16. Device according to claim 14, wherein the holding elements are formed by an insulating frame.

17. Device according to claim 14, wherein the insulating layer is made from one of the following materials or a union of at least two thereof: plastic, polymer ceramic, moulded-on ceramic.

18. Device according to claim 16, wherein the frame is made from one of the following materials or a union of at least two thereof: plastic, polymer ceramic, mould-on ceramic.

19. Device according to claim 16, wherein the side of the contact plate remote from the reception side for the heating elements is covered by a polymer ceramic or ceramic cover layer, whilst the rest of the frame is made from plastic or polymer ceramic.

20. Device according to claim 16, characterized by one or more characterizing features of claims 2 to 10.

21. Heating device with an electrically conductive profile tube, and a holding device inserted into the same accompanied by the reception of ceramic heating elements in recesses between longitudinal struts and crossbars and accompanied by the provision of an insulating strip on the side of the contact plate remote from the heating elements, in accordance with one of the claims 1 to 20.

22. Radiator having several heating devices held in parallel and in spaced manner by retaining webs, in accordance with claim 21.

23. Method for the manufacture of a device for receiving ceramic heating elements in a heating device, wherein at least on a contact plate side remote from a reception side for the heating elements is sprayed or moulded on a layer of the following materials: plastic, polymer ceramic, ceramic.

24. Method according to claim 23, wherein prior to the application of the insulating layer, projections are pressed out of the contact plate plane towards the side receiving the heating elements.

25. Method for the manufacture of a device for receiving ceramic heating elements in a heating device, particularly according to claim 23, wherein as holding elements for the heating elements, a frame frictionally receiving the contact plate is applied thereto by injection-moulding around or spraying on or round the contact plate.

26. Method according to claim 25, wherein the frame is made from one of the following materials: plastic, polymer ceramic, ceramic.

27. Method according to claim 26, wherein the ceramic is sprayed by an atmospheric plasma spraying process.

28. Method according to claim 24, wherein on one side of the contact plate is moulded plastic ceramic or sprayed polymer ceramic and the rest of the frame has injection-moulding around of plastic or polymer ceramic.